

**Process Evaluation of a Career Course:  
A Replication and Extension (Technical Report 31)<sup>1</sup>**

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Abstract

A process evaluation of a three-credit, upper division career course offered at a southeastern university since 1974 is described. We obtained anonymous student course ratings from 219 students, or 75% of students enrolled in the class during the 1999-2000 school year. We utilized archival data from one section of the course in 1995, and normative university course ratings from 1995 as a basis for comparing our course ratings in 1999-2000. Ratings were taken from the results of the Student Instructional Rating System (SIRS) that has been used since 1971, as well as demographic information provided by students. Student ratings of the career course were compared for the 1999-2000 course sections, the 1995 section, and the 1995 normative group. Differences in student ratings across the eleven sections of the course were compared across nine selected SIRS items. Student perceptions of the quality of the career course have been quite consistent over time. Students perceive the career course to be characterized by greater course demands, greater student-instructor involvement, greater course organization, and lower student interest than other courses at the university. Student perceptions of career courses appear to be more positive when the class meets more than one time per week, allowing students the opportunity to integrate and apply what they are learning.

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Career-related courses have been offered in higher education since the early 1900s. Maverick (1926) reported that freshman orientation courses, which appeared as early as 1911, included several hours of instruction on vocational guidance. He noted that one of the early career courses was offered for women at Barnard College, Columbia University in 1921 with the title “Professional Occupations: Their Scope, Functions, and Newer Developments” (Maverick, 1926). Carter and Hoppock (1961) suggested that Edgar J. Wiley, who included a unit on occupations as part of a contemporary civilization course in 1923, had developed the first career course. Folsom and Reardon (2001) located over 80 articles reporting the design, development, management and evaluation of career courses, and most of this literature was written since 1970.

In this report, we describe a process evaluation of a three-credit, upper division career course that has been offered at a southeastern university since 1974. By way of introduction, we first review general surveys of the prevalence of career courses in higher education institutions, and then examine courses focused on a particular discipline or academic unit. Next, we examine meta-analyses of career courses, review some of the features of career courses that may be of special interest to practitioners, and describe research conducted on the career course of interest in this study.

### Surveys of Career Course Prevalence

Borow (1960) was one of the first to describe a comprehensive course, “Vocational Planning,” which was first offered in the General College at the University of Minnesota in 1932. Indeed, Borow and Lindsey (1959) co-authored a text for that course, Vocational Planning for College Students, which was published by Prentice-Hall. Career courses in higher education became more prevalent over the next few decades. Journal articles provided reports on such courses from 1930 to 1960, and there was evidence that 33 institutions of higher education were offering full academic credit career courses in the early 1960s (Carter & Hoppock, 1961). In a related report, Calvert, Carter, and Murphy (1964) estimated that over 100 two- and four-year colleges were providing courses in this area.

Later, Devlin (1974) conducted an extensive survey of college placement offices to determine the extent to which career development courses were being offered. Results indicated that approximately 75 responding institutions were offering career development courses with another 123 institutions indicating that they were planning to propose such a course. Devlin pointed out that many of the career development courses of this era covered three major areas: (1) career choice factors, (2) career information, and (3) job-seeking techniques (Devlin, 1974). This triad of topics most likely continues to define the contents of comprehensive courses.

Reardon, Zunker, and Dyal (1979) surveyed 458 colleges and universities across the nation to learn more about the role and function of career services, including courses. Part of the interest in conducting this national survey was to determine the extent to which the career education concept was being discussed on campuses at that time. Of 299 respondents, approximately 29% (87) indicated that a career planning course for credit was available at their campus. Further, 33% noted that the issue of career education was being studied at their school. In a larger study, Haney and Howland (1978) found evidence of a growing proliferation of career development courses in the 1970's in an extensive survey of 2,400 two- and four-year institutions. Of the respondents, 38% (353) reported offering career courses for credit.

Mead and Korschgen (1994) randomly surveyed two colleges from each of the 50 states in order to learn about current practices with career courses. They obtained responses from 61 schools in 32 states, and 62% offered some kind of career course. Three broad types of courses were offered, geared either toward career decision making, job search preparation, or specific disciplines. Students enrolled were almost equally distributed across the four college years. They reported that 95% of the respondents granted from one to three hours of credit and 5% of the courses were graded pass/fail.

In the most recent national survey we found, Collins (1998) surveyed 1,688 college members of the National Association of Colleges and Employers in 1997 and obtained responses from 26.8%. She found that credit-bearing courses were offered by 30% of those responding, a figure that has held steady since 1981, while 24% offered noncredit-bearing courses. Halasz and Kempton (2000) conducted an e-mail survey using various listservers and found that 70% (28 of 40) of responding institutions reported having a career course. They noted that the course was most frequently offered for one credit, and that the presence or absence of administrative and faculty support was a key issue in offering a career course. Halasz and Kempton (2000) found evidence that the long battle between student and academic affairs was still being waged in regards to giving academic credit for career courses.

### Specialty Career Courses

In research focused on a specific school or college in a university, Montana (1989) surveyed business schools across the nation and found that 64% (N = 120) of the respondents offered some type of career planning and development instruction, and nearly 50% offered formal instruction. In 43% (N = 81) of the schools, the career planning and placement staff provided the instruction. Using a different approach that involved a case study, Heppner and Krause (1979) described a course offered at the University of Nebraska-Lincoln (UNL) that consisted of two hours of academic credit. The course was designed such that each academic department or college could offer the course within their department and use departmental faculty to teach the course. The authors suggested this course system could be an efficient use of career counselors' time through employing the use of academic department faculty to increase student career development competencies. In a report on career course development in the speech department at the University of Rhode Island, Erhart and Gilmore (1977) discussed some

of the issues encountered by career professionals in obtaining approval from academic committees to award credit for career development courses. In spite of these obstacles, a credit course on interviewing, including job hunting, was successfully launched at the upper division level.

Over the years, various authors have described alternative strategies for developing and managing career courses. To assess alternative methods of instruction in a career course, Salinger (1966) reported a four year course development project at Ferris State College. Beginning with a highly structured approach, the course evolved to one that featured small group discussion on career topics and the extensive use of outside resource persons. A similar course development activity intended to increase an awareness of gender roles in career planning was reported by Gerkin, Reardon, and Bash (1988). Bradley and Mims (1992) reported how family systems and birth order were used as the basis for a college career decision-making course. Filer (1986) discussed varied issues in grading student performance in career courses. Four other articles by Barkhaus and Bolyard (1977), Lee and Anthony (1974), Swails and Hess (1977), and Ramsey (1975) were published in the Journal of College Placement in the 1970s that described the development of comprehensive university-level career courses. The latter course was designed especially for women.

Swain (1984) described the development of a comprehensive, three-credit course developed at the University of Illinois. This course, Ed Psych 250 Career Development Theory and Practice, was jointly offered by the Educational Psychology Department in the College of Education, the Career Development and Placement Center, and Division of Counseling Psychology (counseling center). Ed Psych 250 was theory based, open to students at all undergraduate levels, taught by graduate students supervised by a faculty member, and offered in 5-10 sections per semester.

More recently, Brooks (1995) described two career courses offered at North Carolina State University in the business area. Using a case study approach, Brooks offered suggestions to other professionals interested in teaching career courses. Brooks reported that career course participants tended to begin their career planning earlier, develop greater self-awareness, grasp realities of the job market, and write their resumes before graduation. She also reported positive evaluations by employers. A post-course evaluation form developed by the author and completed by students formed the basis for comments as to the value and usefulness of these courses.

### Meta-analyses of Career Course Results

In an effort to learn more about the results of career courses, several meta-analyses provide insight into the effects of career-related courses. Spokane and Oliver (1983) reported that group or class interventions were more effective than individual counseling or other interventions. Later, Oliver and Spokane (1988) reported an analysis of 240 treatment-control comparisons in 58 studies comparing 11 different types of career interventions. They found that career guidance classes produced the largest effect size with regard to client gains resulting from the assortment of career interventions

considered. Classes also involved the largest number of hours and sessions, and were the most expensive intervention according to Oliver and Spokane (1988). Hardesty (1991) also conducted a meta-analysis consisting of 12 studies that evaluated career development courses offered for credit. Results of this meta-analysis confirmed previous research findings of the overall positive effects of undergraduate career courses in increasing both career decidedness (48% more certain) and career maturity (40% more capable of making a realistic decision) of college students. However, Hardesty noted that the long-term effects of career courses, e.g., within a year or two or longer after completion of the courses, had not been established.

A more recent meta-analysis by Whiston, Sexton and Lasoff (1998) examined 47 studies conducted between 1983 and 1995, including nine studies of career classes. Whiston et al. (1998) found that career classes were the third most effective career intervention out of eight different categories of interventions examined. Career classes followed individual and group counseling in effectiveness, but were ahead of group test interpretation, workshops, computer interventions, counselor-free interventions, and other nonclassified interventions. The researchers found classes followed counselor-free interventions and computer interventions as least costly. These findings are similar to those reported by Oliver and Spokane (1988) ten years earlier, except for the findings related to cost noted earlier.

Brown and Krane (2000), in reviewing a series of meta-analyses, concluded that demonstrably effective career interventions, including career courses, have five components. The interventions (1) allow clients to clarify career and life goals in writing; (2) provide clients with individualized interpretations and feedback, e.g., test results; (3) provide current information on the risks and rewards of selected occupations and career fields; (4) include study of models and mentors who demonstrate effective career behavior; and (5) provide assistance in developing support networks for pursuing career aspirations. Brown and Krane suggest that persons designing and evaluating the impact of career courses should assess the extent to which at least three of the five components are included in the course.

### Special Features of Career Courses

In reflecting on the research available at the time, Gimmestad (1984) provided an insightful discussion about the use of instruction in career planning. He pointed out the benefits of a systematic approach to delivery of career services provided by a career course intervention. A course provides for efficient use of staff and delivery of services. Even more important, when academic credit is involved, the institution almost always stands to benefit due to commonly used funding formulae that are based on the generation of academic credit. Sounding a recurring theme in this literature, Lent, Larkin, and Hasegawa (1986) noted that the efficient delivery of career services to large numbers of students is a major advantage of career planning courses.

In reviewing the impact of career courses, Folsom and Reardon (2001) reviewed 46 reports of the effectiveness of the various career planning courses offered in

institutions of higher education throughout the country. More than 16,320 students were involved in these studies, which were conducted from 1976 to 2001. They reviewed 38 studies of career course *outputs*, e.g., career thoughts, career decision-making skills, vocational identity, and career course *outcomes*, e.g., persistence (retention) in college, job satisfaction, or satisfaction with field of study. They found 34 studies (90%) reporting positive gains in measured output variables, and 4 studies (10%) reporting no changes in output variables. In addition, they reviewed 15 studies of career course outcomes and found 13 studies (87%) reporting positive gains in measured outcome variables, and two studies (13%) reporting no changes in outcome variables.

### Research Related to the Present Study

In designing the present study, we were mindful of prior research by Johnson, Smither, and Holland (1981), who evaluated two variations on a career development course at Johns Hopkins University to determine what kind of interventions were helping which students. While finding a strong main effect for increased vocational identity, they were unable to identify any systematic relationships between more than 15 course interventions and student preferences. The author's noted several problems in trying to specify the best interventions: (1) each course is made up of different students and has its own mood and climate; (2) each intervention has multiple possible effects, e.g., SDS results could provide cognitive structure and/or emotional reassurance; and (3) there is little reported success in finding positive student-treatment interactions in instruction. Johnson et al. (1981) suggested that practitioners focus on creating main effects by using a wide variety of interventions with less emphasis on student-treatment interactions. They further suggested that all treatments used in a course should be rated immediately after use, seminars led by two or more leaders should be compared to learn more about the role of the instructor, and logs of the success or failure of each intervention for various students should be maintained.

We were also interested in replicating the results of a study by Reardon and Regan (1981) that examined student reactions to an earlier version of the present course. These researchers compared scores from a standardized instrument for the career development course and other university courses taught in a standard classroom format. The comparison was based on five composite factors reported in the instrument: (1) level of instructor involvement, (2) level of student interest, (3) amount of student-instructor interaction, (4) extent of course demands, and (5) level of course organization. Reardon and Regan (1981) found no significant differences in mean scores between the university wide courses and the career planning course with regard to levels of instructor involvement, student interest, and course demands; however, the career course received higher ratings in amount of student-instructor interaction and level of course organization. Hence, the researchers concluded that the career development course compared very favorably in terms of academic acumen with other courses in the academic marketplace, and better in terms of student-instructor interaction and course structure or organization. Reardon and Regan (1981) did not examine student-treatment interaction effects across various sections of the career course.

Several other evaluations have been undertaken with the present career course in recent years. For example, Reed, Reardon, Lenz, and Leierer (2001) conducted an impact evaluation of this career course and found that students decreased their negative career thoughts when the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a) was used as a pre-test and posttest measure. The greatest decrease in negative thinking was found in students with the highest level of negative thinking at the beginning of the course. Specific components of negative career thinking, decision making confusion and commitment anxiety, contributed significantly to the main effect. There were no significant interactions with race or gender.

Folsom, Peterson, Reardon, and Mann (2001) conducted an evaluation study to assess the effect of this course on the following student outcomes: (1) retention to graduation, (2) time taken to graduate, (3) the number of credit hours taken to graduate, (4) the number of course withdrawals executed by students, and (5) academic success as indicated by cumulative GPA at graduation. They studied students who completed the career development course between 1989-1990 and 1993-1994 ( $n = 544$ ). A comparison sample of non-course participants was evaluated based on the same outcome variables ( $n = 544$ ). The two groups were matched by gender, race, high school grade point average (GPA), class year, SAT score, and initial year of matriculation. They compared outcome variables for the two groups based on registrar data as of Fall 1999. Folsom, Peterson et al. (2001) found that career course participants graduated at a rate of 81% compared to a rate of 69% for the general population of students; graduated with an average of 110 credit hours compared to 132 for the general population; female course participants graduated on average in 50 months, while female nonparticipants took an average of 61 months (a statistically and practically significant difference); male participants in the course executed less course withdrawals on average (.9) than did male nonparticipants (1.2; a statistically but impracticably significant difference); minority course participants on average took 104 credit hours to graduate, while minority nonparticipants took 115 (a statistically and practically significant difference). Findings of these two studies suggest that the outcomes of this course have practical implications for moving students toward more positive thoughts related to career problem solving and decision making, and positive outcomes related to college success.

The present career course study was conducted in light of findings and suggestions reported by earlier researchers. Consistent with the findings of Brown and Krane (2000), this course provided an opportunity for students to specify career/life goals in writing, provided students with individualized interpretations and feedback from small group leaders, provided cost/benefit information about selected occupations, and provided students with assistance in developing social networks for pursuing career goals. Following suggestions by Johnson, Smither, and Holland (1981), the present study involved 11 different career course sections rather than just one, student ratings were compared across all sections to explore differences among instructors, and course ratings were obtained during the last week of class.

The present study examined student ratings as an outcome of a career course evaluation. These data are unique because they serve multiple purposes. Student



evaluations of courses and instructors are required at our university in all courses. These results are used to inform the public about consumer (student) evaluations of courses, and to provide for faculty self-evaluations and curriculum analysis. Career courses, unlike other career interventions offered at our university, have a mandated user evaluation component and the results of some selected student evaluations become part of the public record. This means that anyone can review the student course evaluations in making a decision about enrolling in a particular course or taking the course from a particular instructor. The instrument used to provide this course information is the State University System Student Assessment of Instruction (SUSSAI; Herbert, 1999).

However, some student course evaluation results are treated as confidential information to be used in a faculty member's self-evaluation of teaching effectiveness. These student evaluations were once used for faculty evaluations, e.g., tenure decisions, but some of these student ratings can no longer be used for this purpose because of various administrative and legal rulings. The instrument available at the university to provide this type of course information is the Student Instructional Rating System (SIRS; Areola, 1973), and the instrument was used in this study. We found that the issues related to confidentiality of student evaluation results created complications in using these data to study the impact of a career course intervention, and we discuss these later.

Several research questions guided our study:

1. Were student ratings of our career course in 1995 different from student ratings in 1999-2000?
2. Were student ratings of our career course in 1999-2000 different from student ratings of other, similar courses in the university in 1995?
3. Were student ratings of our career course in 1999-2000 different across four alternative class-meeting time arrangements?

In this section, we describe the characteristics of students enrolled in our career course 1999-2000, the instruments used in data collection, the data collection and analysis procedures, and the career course intervention we were analyzing.

### Participants

In the 1999-2000 academic year, 293 students were enrolled in 11 sections of a career course at a southeastern research university. We obtained anonymous student course ratings from 219 students, or 75% of students enrolled in the class during this school year. Because the course evaluation was completed anonymously per university regulations, we can only describe the demographic characteristics of students enrolled in the course at the beginning of the term. The majority of students completed the course to fulfill elective requirements for the baccalaureate degree.

The sample ( $N = 293$ ) consisted of 193 females (66%) and 100 males (34%). Freshmen made up 16% of the sample, sophomores 44%, and juniors and seniors represented 19% and 21% of the sample, respectively. Participant ages ranged from 18-

32 with a mean age of 21. Ethnic diversity of the sample was generally proportional to the general student population of the university, which is shown in parenthesis: American Indian, .5% (.4%); African American, 13% (12%); Asian, 4% (3%); Hispanic American, 8% (7%); Caucasian, 74% (74%); and Other, .5% (4%). There were 49 (17%) officially undeclared majors enrolled in the class.

We obtained an incidental sample of students' scores on the Occupational Alternatives Question (OAQ; Slaney, 1980), a measure of career decidedness. The OAQ was administered to all 293 students, but a data collection error eliminated 3 of the 11 sections enrolled in the course during 1999-2000, leaving a sample 166 students. OAQ scores for our sample ranged from 1-4 with a mean of 2.73 ( $SD = .82$ ). The OAQ is scored as follows: 1 = a first choice is listed with no alternatives ( $N = 9$ ); 2 = a first choice is listed with alternatives ( $N = 56$ ); 3 = no first choice is listed, just alternatives ( $N = 71$ ); and 4 = neither a first choice or alternatives are listed ( $N = 30$ ). The typical student in this study listed either a first choice with alternatives or, more likely, no first choice and only alternatives.

This same group of 166 students described their satisfaction with their career in the following ways:

1. well satisfied with my choice,  $N = 24$  (14%).
2. satisfied but have a few doubts,  $N = 38$  (23%);
3. not sure,  $N = 27$  (16%);
4. dissatisfied but intend to remain,  $N = 10$  (6%);
5. very dissatisfied and intend to change,  $N = 1$  (.6%);
6. undecided about my future,  $N = 66$  (40%);

These data indicate that while almost 40% are satisfied with their present career situation, the remainder are unsure, dissatisfied, or undecided.

### Career Course Intervention

The career course examined in this study has been in existence since 1973 (Lee & Anthony, 1974; Peterson, Sampson, & Reardon, 1991; Peterson, Sampson, Lenz, & Reardon, in press). This course was also described as an intervention in a case study report by Reardon and Wright (1999). The original course was a series of career seminars, which was eventually developed into a formal three credit hour course with the leadership of staff in the counseling center and the career placement center. Instructional systems specialists further developed and improved the course design and integrated multimedia career development resources available through the university's career resource center. In 1984, the conceptual base of the course changed to include a systems approach, and in 1993, a foundation in cognitive information processing (CIP) theory was added. The present course is based on CIP theory (Peterson, Sampson, & Reardon, 1991; Peterson, Sampson, Reardon, & Lenz, in press; Sampson, Lenz, Reardon, & Peterson, 1999), which is incorporated into the text, Career Planning and Development: A

Comprehensive Approach (Reardon, Lenz, Sampson, & Peterson, 2000a) and the related Student Manual (Reardon, Lenz, Sampson, & Peterson, 2000b).

The course is comprised of three units. Unit I, “Career Concepts and Applications,” focuses on self-knowledge, knowledge about options, and decision making. Assignments include writing an autobiography and completing the Self-Directed Search (Holland, 1994) and a skills assessment activity. Students develop knowledge about occupational and educational options through the use of two computer-assisted career guidance systems (e.g., SIGI PLUS, Discover, or Choices) and by writing a research paper on one or three occupations. The concepts of decision making and metacognitions are introduced in this unit and students have the opportunity to apply this knowledge through creating an Individual Action Plan (IAP). The IAP includes a career goal and a breakdown of steps to achieve that goal, which includes activities, resources needed, and completion dates. Students also complete the CTI (Sampson et al., 1996a), which helps them identify their level of negative thoughts that might be impeding their career problem solving and decision making. Students also have access to Improving Your Career Thoughts: A Workbook for the Career Thoughts Inventory (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b), which may be recommended by the instructor as a vehicle to help students understand and alter their negative career thoughts, using a cognitive restructuring exercise.

Unit II, “Social Conditions Affecting Career Development,” focuses on current social, economic, family, and organizational changes affecting the career planning process and the need for students to develop more complex cognitive schema to solve career problems. Unit III of the course focuses on employability skills and strategies for implementing academic/career plans. Assignments include two information interview reports, the completion of a resume and cover letter, and a strategic/academic career plan paper. This final paper utilizes the CASVE cycle from the CIP model as an over-arching cognitive strategy to help students integrate their learning into the career problem-solving and decision-making process.

Grades are based on the successful execution of a performance contract (PC) by the student. The PC includes 16 different graded activities spread across the three units of the course; each activity has a point value ranging from 10 to 100 and some activities are counted separately in each unit, e.g., a unit test worth 25 points is given in each unit. A student enrolled for three credits is evaluated on 28 different activities and a letter grade is assigned on the basis of successful completion of a percentage of the 653 available points. More information about this career course is available at <http://www.career.fsu.edu/techcenter/instructor/undergraduate/index.html>.

In 1999-2000, the 11 sections of the course were taught by six different lead instructors and 22 different co-instructors with an instructor/student ratio of about 1:8. The class involved a mixture of lecture, panel presentations, and small and large group activities. Each instructor was assigned a small group of students who met throughout the semester during class time. The instructors also met individually with the students at

least once during the semester to assist them in developing their IAP and to discuss their assessments and progress in the class.

### Instruments

As in the study by Reardon and Reagan (1981), the present course evaluation draws upon the results of a standardized instrument that has been used at our university since 1971, the Student Instructional Rating System (SIRS; Arreola, 1973), as well as demographic information provided by students at the beginning of the class and academic records provided by the university registrar's office. The SIRS is a standardized student course evaluation form developed at Michigan State University (Davis, 1969) [<http://www.msu.edu/dept/soweb/>] and adapted for use at our university (Arreola, 1973).

This system provided an opportunity for instructors to obtain reactions to their instructional effectiveness and course organization and to compare these results to similar courses offered within the university. At our university, SIRS consists of 32 items, and 25 items enable students to express their degree of satisfaction with the quality of instruction provided in the course by using a five-point Likert scale. For example, "The course was well organized," could be marked Strongly Agree, Agree, Neutral, Disagree, or Strongly Disagree. The SIRS includes five composite factors related to student evaluation of courses: (1) instructor involvement, (2) student interest, (3) student/instructor interaction, (4) course demands, and (5) course organization. Originally established at Michigan State University, this factor structure was replicated at our university (Arreola, 1973).

In this study, we first assessed differences in student ratings across the five composite factors of the SIRS. Student ratings of the career course were compared for the 1999-2000 course sections, the 1995 section, and the 1995 normative group. In our second analysis, differences in student ratings across the eleven sections of the career course in the year 1999-2000 were compared across nine selected SIRS items. The SIRS items we selected reflected evaluations of the course in general, and not evaluations of individual instructors. These nine items also appeared to be the most relevant in terms of comparing the career course with other courses at the university. The items selected for analysis were:

5. You were interested in learning the course material.
6. You were generally attentive in class.
7. You felt that this course challenged you intellectually.
8. You have become more competent in this area due to this course.
18. The course was well organized.
19. The course materials appeared to be presented in logical content units.
20. The direction of the course was adequately outlined.
21. This course made a significant contribution to your overall personal educational objectives.
22. What percentage of the course material do you feel you actually learned? (a=more than 90%, b=about 80%, c=about 70%, d=about 60%, e=less than 60%)

### Procedure

We obtained SIRS course evaluation data by asking students to complete the instrument during the last week of classes in the Fall 1999, Spring 2000, and Summer 2000 semesters. As provided in university instructions, the instructors asked enrolled students to administer the SIRS forms and to return them in a sealed envelope to the university's Office of Evaluation Services. No instructors were present in the classroom as the forms were administered or scored. Because these data are considered confidential personnel records, we obtained permission from each of the six lead instructors to use their SIRS data from the 11 sections and agreed to report results of our investigation without using instructor names. SIRS data from one 1995 career course section and the 1995 normative data were taken from SIRS summary reports provided by the university. These data may be characterized as anonymous archival data, which we used as a basis of comparison for data from our career course in the year 1999-2000.

The rationale for this unusual procedure follows. Because the university no longer provides normative data on the SIRS instrument as the result of several legal rulings, we had to pursue a less direct method of establishing normative data for answering our research questions. The archival data we utilized as a normative group were abstracted from SIRS evaluations across the university in the year 1995. We have confidence in this procedure because of the extremely large number of cases and the overall stability of course ratings over the years. As such, we reasoned that if a comparison of the course ratings in 2000 and 1995 yielded few significant differences, we could use the normative data from the year 1995 as a basis of comparison for the 2000 evaluation data. The 1995 normative group consisted of data from 16,001 students enrolled in courses in a standard classroom, with a class size of 11-40. These normative data represented evaluations across course levels (from 2000-4000 level courses) and faculty ranks (from Graduate Assistants to Professors).

### Data Analyses

We conducted two separate analyses of the student evaluation data collected in this study. The first analysis involved comparisons among student ratings from the academic year 1999-2000 with ratings from one selected section of the course in 1995 and normative data from 1995. The 1999-2000 ratings were based on a composite of ratings from 11 sections of the course. The 1995 ratings were taken from one course section in that academic year, taught by an instructor who was also the instructor of multiple course sections in the year 2000. The normative data in 1995 were drawn from a large normative group university wide.

Three separate groups of t-tests were conducted, comparing (1) the 2000 student evaluations and those from the 1995 course section, (2) the 1995 course section and the 1995 normative group, and (3) the 2000 student evaluations and the 1995 normative

group. T-tests were conducted for each of the five composite factor ratings reported earlier. We employed t-tests in our statistical analysis because we did not have complete data sets for the 1995 course section and 1995 normative group, and were only provided with average ratings across SIRS items and composite factors in the archival data we received. As such, an omnibus F-test was not possible.

The second analysis involved an assessment of differences in student evaluations according to the number of scheduled course meetings per week. In the academic year 1999-2000, there were two sections that met one time per week, five sections that met two times per week (Monday-Wednesday or Tuesday-Thursday), two sections that met three times per week (Monday-Wednesday-Friday), and two sections that met four times per week (Monday-Thursday). A four-group ANOVA was conducted to determine if there were significant differences across student ratings on the nine selected SIRS items according to the number of times per week the course was scheduled.

## Results

With reference to the first two research questions guiding this study, this section discusses results of the two data analyses we conducted. In the first analysis, we compared student ratings across the five SIRS composite factors for the 1999-2000 course sections, the 1995 course section, and the 1995 normative group. Tables 1 and 2 show the results of this analysis.

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Findings demonstrated that the career course has remained extremely consistent in terms of very positive student evaluations from 1995 to 2000, with none of the five composite factors characterized by significantly different student ratings across the two time periods. The career course in 1995 and the normative group in 1995 were also quite similar. Only the composite factor of Student Interest was greater for the normative group in 1995 than for the career course that year. SIRS ratings for the 1999-2000 period were significantly different from those of the normative group in 1995 across the composite factors of Student Interest, Student-Instructor Interaction, Course Demands, and Course Organization. Student ratings of Course Organization, Course Demands, and Student-Instructor Interaction were higher for the career course in 1999-2000 than the normative group. Student ratings of Student Interest were lower for the career course in 2000 than the normative group.

With respect to our third research question, our second analysis involved a comparison of student ratings across nine selected SIRS items according to the number of scheduled class sessions per week in the 1999-2000 career course. Table 3 provides a comparison of student ratings for the nine SIRS items, and an indication of differences in ratings for the various course schedules.

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Insert Table 3 Here  
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Student evaluations were more positive across multiple evaluation areas for course sections meeting more frequently than once per week. In the overall ANOVA omnibus test, all items with the exception of two were characterized by significant differences in course ratings according to number of course meetings per week. Items characterized by significant differences in student ratings at the .05 level included items 5, 7, 8, 18, 19, 20, 21, and 22.

We conducted follow-up pair wise comparisons for all items characterized by significant differences in student ratings with the Tukey HSD procedure. Pair wise comparisons were assessed to identify the precise nature of differences in course ratings, and to determine which course schedules were evidenced by significantly different student evaluations. For item 5, there were significant differences in student ratings for the sections meeting one time per week and the sections meeting two and four times per week. In both cases, student ratings were higher or more positive for course sections meeting more than once per week. Significant differences in student ratings were identified across course sections that met once per week and those that met two or four times per week for item 7. Again, in both cases, student ratings were significantly higher for course sections meeting more than once per week. The same differences were identified for item 8, with significantly different student ratings for course sections that met once a week from those that met two and four times per week, with higher ratings for course sections meeting more frequently.

Ratings for item 18 demonstrated significant differences between course sections meeting once per week and those meeting two, three, or four times per week, again with higher ratings for course sections meeting more frequently. Significant differences in course ratings for item 19 were identified between the course sections meeting once per week and those meeting two or three times per week, with higher ratings for course sections meeting two or three times per week. Significant differences in student ratings for item 20 were found across course sections meeting once per week and those meeting two or four times per week, with significantly higher ratings for courses meeting two or four times per week. For item 21, course ratings were significantly higher and more positive for course sections meeting two, three or four times per week than course sections meeting once per week.

Finally, for item 22, significant differences in course ratings were found for course sections meeting once per week and course sections meeting four times per week, again with higher ratings for course sections meeting four times per week. There were also significant differences in student ratings for course sections meeting three times per week and those meeting two and four times per week. In both cases, course sections meeting three times per week were characterized by significantly lower student ratings. Inspection of Table 3 provides a more complete analysis of differences in course

evaluations across the four course schedules with reference to the nine selected SIRS items.

### Discussion

The students enrolled in our career course were generally representative of the demographic characteristics of undergraduate students at the university with two exceptions. A disproportionate number of the students were sophomores who were either undecided about their major or exploring options for majors and related occupations, and more than half the students were female. This preponderance of women in the class (66%) mirrors the percentage of women seeking services in the university's centralized Career Center, which is approximately 60% (Florida State University Career Center, 2000). Likewise, 56% of students enrolled at the university are female (Florida State University, 1999-2000). As with participation in other human services programs, women appear to be more willing to use social services programs such as those offered by the Career Center.

In reviewing the results of our study and prior research on career courses, we were struck by the paucity of research examining the interactions of student and instruction variables. Of 46 studies reviewed by Folsom and Reardon (2001), the report by Johnson, Smither, and Holland (1981) stands alone as an example of a student-treatment interaction study. Perhaps such research is complicated by the fact that career courses represent complex constellations of career interventions that are compressed into relatively short periods of time. This can make it difficult to tease out the impact of a specific intervention on particular students over time. However, this difficulty is mitigated by the fact that students are usually attending the class for a period of weeks or months, increasing the ease of data collection and follow-up.

In earlier research, Reardon and Regan (1981) found the career course received higher ratings with respect to student-instructor interaction, course demands, and level of course organization in comparison to other courses offered at the university. The present study examining a later iteration of this same course found similar results. However, unlike the earlier study by Reardon and Regan (1981), the present study found lower student ratings of the career planning course compared to other courses offered at the university with regards student interest. There was no difference in student ratings of levels of instructor involvement, similar to the findings of Reardon and Regan (1981).

Several aspects of the results of this study are noteworthy. First, there are little, if any differences in student evaluation ratings between the 1995 career course section and the 1999-2000 career course sections. Indeed, the current version of the course receives ratings that are remarkably similar to those reported by Reardon and Regan (1981) based on data obtained in 1977-1978. They reported mean SIRS ratings as follows (1999-2000 ratings are in parenthesis): Instructor Involvement, 1.7 (1.7); Student Interest, 2.0 (2.1); Student-Instructor Interaction, 1.7 (1.6); Course Demands, 3.6 (3.4); and Course Organization, 1.9 (1.7).



This consistency in ratings is likely a result of the fact that the basic organizational structure, content, assignments, and instructor responsibilities for the course have not changed over this time period. In effect, instructor personality, philosophy, presentation style and other instructor variables appear to have less influence on student ratings than instructional design methodology. It is likely that the systematic use of an instructor's manual contributes to a very high degree of replicability in the course. This finding is related to the results reported by Johnson, Smither, and Holland (1981) regarding the lack of differences in student ratings across multiple career course sections.

Second, the differences that do exist among the 1995 career course section, the 1999-2000 career course sections, and the 1995 normative group tend to show that the career course is different from the 1995 normative group. The indication of less student interest in the career course is difficult to explain, especially because most students voluntarily seek entry into this elective course. However, we speculate that in 1999-2000 more students were referred to the career course by advisors and academic administrators in order to remediate various educational planning problems, which may explain a lower student interest rating for the career course. It may be that the students who were referred to take the career course are those that exhibit a diminished level of interest in all of the courses they take. There may additionally be specific elements of the course that are more or less interesting to students than others. Additional research might target differences in student interest associated with various course materials and topics.

The finding that students believe that this course demands more of students than other courses at the university is not surprising. Among the most frequent anecdotal complaints about the course are that it requires too much "busy" work, that there are too many assignments, and that "this course demands more time than courses in my major." Given that this course is designed to be a personal growth and learning experience for students, it might be that students expect to exert less effort in the course. In reality, it is likely that the career course requires more personal introspection than other courses. The broad spectrum of issues and topics covered in the course additionally necessitates a large number of assignments for optimal learning and transfer of learning to each student's individual career development situation. This may additionally contribute to the greater perceived course demands.

Students reported that the career course promoted more student-instructor involvement in comparison to the 1995 normative group. This is likely due to the fact that a portion of class meetings are reserved for small group meetings where students have a greater chance to participate in discussions and interact with an instructor. The required student-instructor conference also may contribute to higher student-instructor involvement. Students also indicated that the career course was better organized than the normative group. This is likely due to the highly detailed course syllabus and schedule, the comprehensive instructor guide that helps instructors keep students aware of upcoming lectures and assignments, and the student workbook that mirrors the text. Specifically, the student manual allows students to directly apply what they learn in class to their own career development. It should be noted that all of the above differences,

while statistically significant, were relatively small and may have limited practical significance.

With respect to the comparison of course ratings by frequency of meetings per week for 1999-2000, course sections meeting once per week were uniformly rated lower than course sections meeting multiple times during the week. It is likely that students in course sections meeting one day per week were overwhelmed with information from a two hour and forty minute class. Students likely did not have adequate time to reflect and assimilate what they learned about one topic before another topic was started. Student ratings of course sections meeting several times per week were consistently higher than course sections meeting once per week, regardless of how many class meetings occurred per week. These findings provide support for the belief that students need time to integrate new and old knowledge about themselves and their occupational, educational, and employment options. Given the lower student ratings for the once weekly offering of our course, we have stopped offering our career course on the once-a-week basis.

The current study provides a longitudinal analysis of a variable credit career course over a period of five years. There are a number of strengths of the current study that lend support to the validity and generalizability of the findings. The standardization of the course, evidenced through the use of the same course materials over a number of years, and the published text, student manual, and instructor's manual, ensures that the treatment received by all students who take the course is relatively consistent. This consistency in course structure and content additionally ensures that findings of this research are applicable to all sections of the career course, and not solely those sections directly analyzed in this study. Additionally, the large sample sizes in this study ensured that there was sufficient power to identify significant group differences.

There are also a number of limitations of the current study that must be addressed. In the first analysis, comparing student ratings in the course section in 1995 with ratings in 1999-2000 and the normative group, sample sizes were sufficiently large, yet largely unequal. This unevenness in sample sizes across the groups may have impacted findings. Additionally, the lack of raw data for the 1995 normative group precluded the use of an ANOVA analysis in comparing ratings across the three groups of interest (1995 course section, 1995 normative group, and 1999-2000 course sections). As such, the only option for data analysis was to conduct a series of pair wise t-tests. Without the completion of an a priori omnibus test, this data analysis procedure may have unfortunately capitalized on family-wise error. Finally, the analysis of students enrolled in the career course at one university limits the generalizability of findings to this course at this university. Future research might compare student ratings of similar courses at different universities to increase the generalizability of results.

In summary, student perceptions of the quality of the career course have been quite consistent over time. Differences identified suggest that students perceive the career course to be characterized by greater course demands, greater student-instructor involvement, greater course organization, and lower student interest than other courses at the university. While these findings are statistically significant, the small differences in

actual ratings indicate that they may be of limited practical significance. The second analysis indicated that student perceptions of career courses appear to be more positive when the class meets more than one time per week, allowing students the opportunity to integrate and apply what they are learning. Course designers and instructors might benefit from using this information in structuring career courses and planning course schedules.

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Table 1: Comparison of Composite Factor Scores:  
1999-2000 Course Sections vs. 1995 Course Section vs. 1995 Normative Group (Means  
and Standard Deviations)

	<b>2000 Course Sections</b>	<b>1995 Course Section</b>	<b>1995 Normative Group</b>
<b>Instructor Involvement</b>	1.70 (.80)	1.77 (.76)	1.61 (.78)
<b>Student Interest</b>	2.10 (1.0)	2.13 (.96)	1.74 (.83)
<b>Student- Instructor Interaction</b>	1.60 (.70)	1.79 (.76)	1.76 (.85)
<b>Course Demands</b>	3.40 (1.2)	3.41 (1.04)	3.57 (1.05)
<b>Course Organization</b>	1.70 (.70)	1.74 (.67)	1.84 (.83)

Scale: 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree



Table 2: Comparison of Composite Factor Scores:  
 1999-2000 Course Sections vs. 1995 Course Section vs. 1995 Normative Group  
 (T-ratios representing significant differences across groups)

	<b>1999-2000 Course Vs. 1995 Course Section</b>	<b>1999-2000 Course Vs. 1995 Normative Group</b>	<b>1995 Course Section Vs. 1995 Normative Group</b>
<b>Instructor Involvement</b>	-.44	1.70	1.09
<b>Student Interest</b>	-.15	6.36*	2.48*
<b>Student- Instructor Interaction</b>	-1.34	-2.77*	.19
<b>Course Demands</b>	.04	-2.38*	-.81
<b>Course Organization</b>	.29	-2.48*	-.64

\* Significant at the .05 level

Table 3: Comparison of Course Ratings by Frequency of Meetings per Week:  
One meeting per week vs. Two meetings per week vs. Three meetings per week vs. Four  
meetings per week

<b>SIRS Item Number</b>	<b>1 meeting per week</b>	<b>2 meetings per week</b>	<b>3 meetings per week</b>	<b>4 meetings per week</b>	<b>Course Average</b>	<b>F-ratio</b>
5	2.5	1.98	2.12	1.92	2.08	3.18*
6	2.17	1.89	1.85	1.74	1.90	1.99
7	3.19	2.33	2.60	2.49	2.55	6.01*
8	2.36	1.60	1.88	1.64	1.79	7.70*
18	2.18	1.50	1.49	1.76	1.65	9.80*
19	2.03	1.53	1.54	1.67	1.64	5.72*
20	1.94	1.50	1.59	1.54	1.60	3.84*
21	2.39	1.75	1.72	1.63	1.83	7.44*
22	2.31	1.90	2.38	1.56	2.00	6.56*

Scale: 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree

\* Significant at the .05 level